

# High Frequency Ceramic Solutions

Preliminary

2.45 GHz Balun / Matching Network : Optimized for TI Chipset CC2520

P/N 2450BM15B0002

Detail Specification: 12/10/2009

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## General Specifications

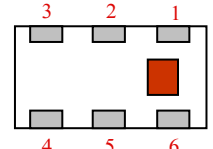
Part Number	2450BM15B0002
Frequency (MHz)	2400 - 2500
Unbalanced Impedance	50 $\Omega$
Differential Balanced Impedance	Conjugate match to TI Chipset 2520
Insertion Loss	1.5 dB max.
Differential Mode Attenuation (dB)	16 min.@ 4800~5000MHz
	25 min.@ 7200~7500MHz

Return Loss	10.0 dB min.
Phase Difference	180° $\pm$ 15
Input Power	2W max.
Reel Quantity	4,000
Operating Temperature	-40 to +85°C
Storage Temperature Range	+5 ~ +35 °C, Humidity 45~75%RH, 12 mos. max

P/N Suffix	Packaging Style	Bulk	Suffix = S	Eg. 2450BM15B0002S
		T & R	Suffix = E	Eg. 2450BM15B0002E
	Termination Style	100% Tin	Suffix = None	Eg. 2450BM15B0002(E or S)
		Tin / Lead	Please consult Factory	

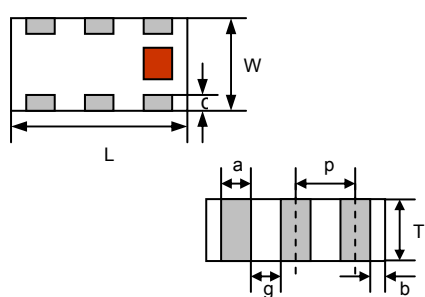
## Terminal Configuration

No.	Function
1	Unbalanced Port (2.2nH Ind)*
2	GND
3	Balanced Port
4	Balanced Port
5	GND
6	GND

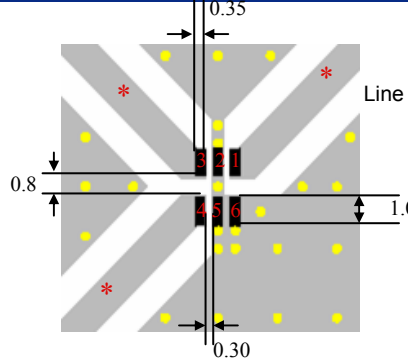


## Mechanical Dimensions

	In	mm
L	0.079 $\pm$ 0.004	2.00 $\pm$ 0.10
W	0.049 $\pm$ 0.004	1.25 $\pm$ 0.10
T	0.028 $\pm$ 0.004	0.70 $\pm$ 0.10
a	0.012 $\pm$ 0.004	0.30 $\pm$ 0.10
b	0.008 $\pm$ 0.004	0.20 $\pm$ 0.10
c	0.012 +.004/-0.008	0.30 +0.1/-0.2
g	0.014 $\pm$ 0.004	0.35 $\pm$ 0.10
p	0.026 $\pm$ 0.002	0.65 $\pm$ 0.05



\*2.2 nH Ceramic Chip inductor required on unbalanced port. See page 2 for details



### Mounting Considerations

Mount these devices with brown mark facing up. Units: mm

Line width should be designed to provide 50  $\Omega$  impedance matching characteristics.

- Solder Resist
- Land
- Through-hole ( $\phi$ 0.3)

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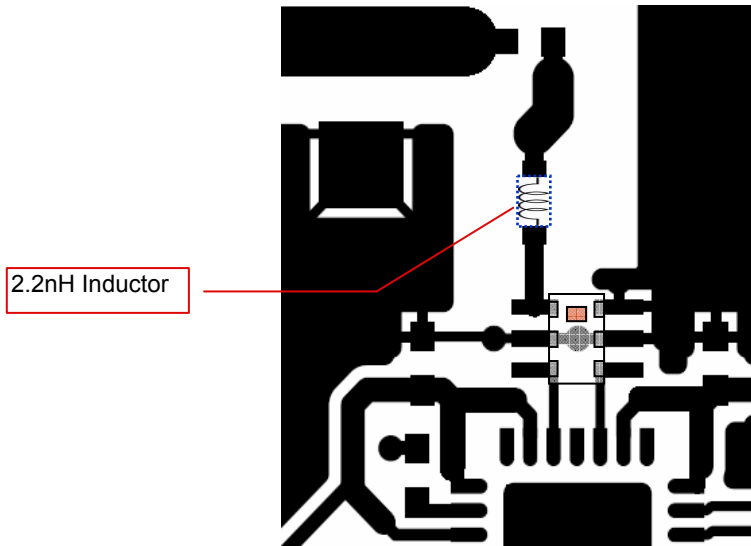
[www.johansontechnology.com](http://www.johansontechnology.com)

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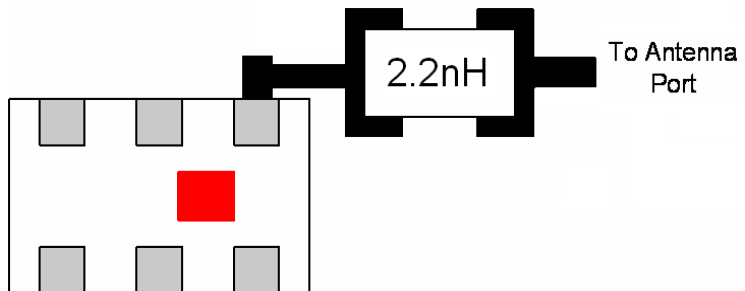
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### Mounting Considerations

Mounting layout for reference only.  
 Mount device with colored mark facing up.  
 For detailed dimensions, please contact Johanson Technology or visit TI's CC2520 website:  
<http://focus.ti.com/docs/prod/folders/print/cc2520.html>



Component P/N:  
 2.2nH Inductor: L-07C2N2SV6T



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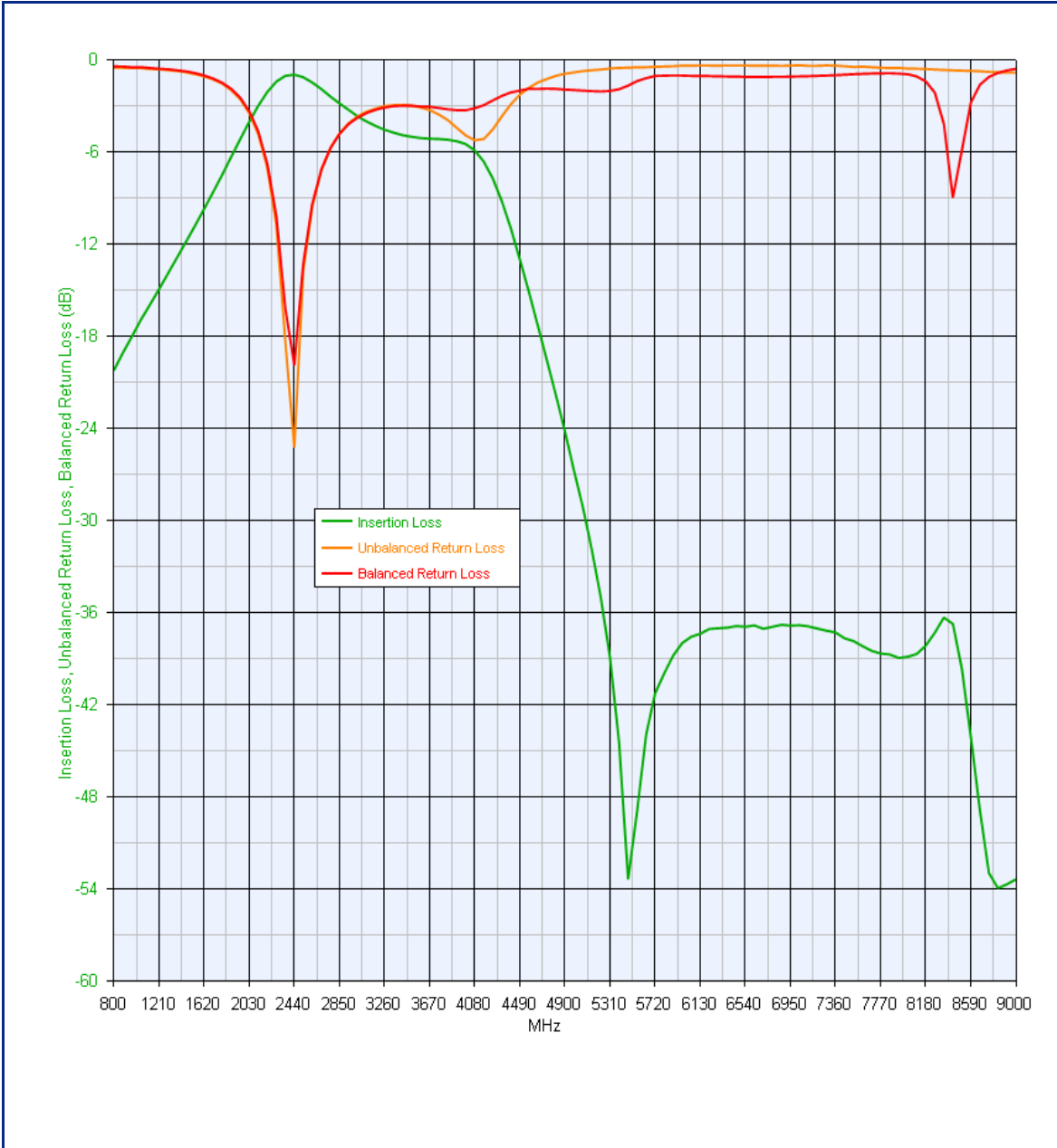
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## Typical Electrical Performance (T=25°C)



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